

# Man Takes First Moon Step

## Nixon Speaks To Walkers on Moon Surface

Washington — (UPI) — President Nixon called the two astronauts on the phone today as they walked on the surface of the moon.

"Because of what you have done the heavens have become part of man's world," he said in a two-minute call that spanned 250,000 miles of space.

"Thank you, Mr. President. It's a great honor and privilege for us to be here, representing not only the United States but men of peace of all nations, men with interest and curiosity and men with a vision for the future. It's an honor for us to be able to participate here today," Neil Armstrong responded.

Nixon replied: "Thank you very much and I look forward, all of us look forward, to seeing you on the Hornet on Thursday."

Washington — (AP) — President Nixon and leaders of the nation prayed and worshipped Sunday in the White House with their eyes and thoughts fixed on space.

The President expressed confidence in a successful climax to the Apollo 11 mission to let two astronauts walk on the moon and then return safely to earth.

Asked after the services whether he thinks "they will make it," Nixon told reporters he doesn't know much about technical things and astronaut Frank Borman says it is a very difficult operation.

"But he points out that they have tested all the technical aspects over and over again," the President said, "and if he says it's O.K., I feel better about it." Borman, commander of the Apollo 8 space voyage, read during the morning worship the first 10 verses of Genesis which he and his crew repeated back to earth last Christmas Eve while orbiting the moon.

Sen. Mark O. Hatfield of Oregon, a leading Baptist layman, gave the invocation. Rep. John H. Buchanan Jr. of Alabama, an ordained Baptist minister, gave the benediction.

And Dr. Paul S. Smith, president of Nixon's alma mater, Whittier College, in California, delivered the sermon. He is a Quaker.

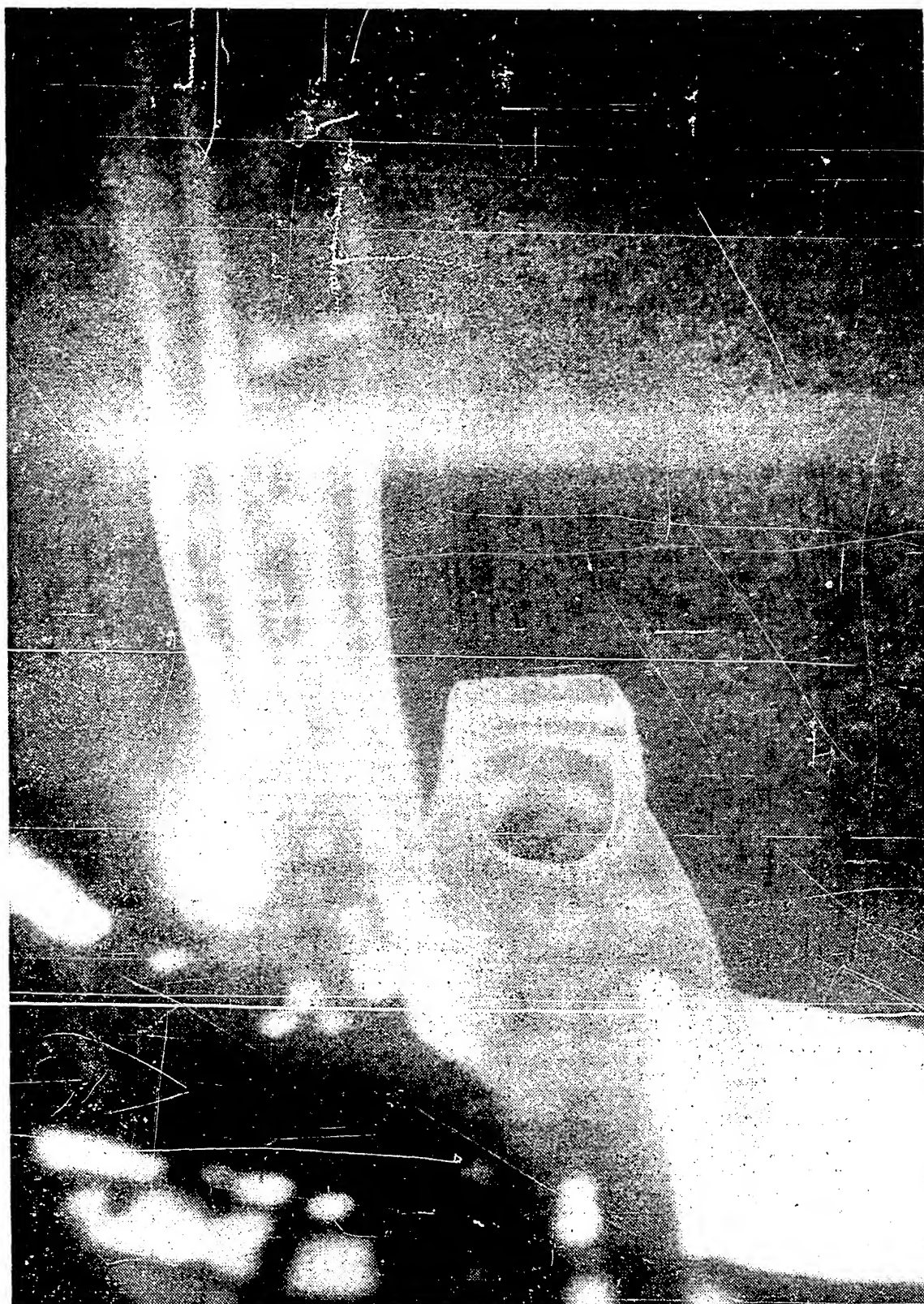
A record 346 persons were invited to the services.

There were prayers for peace and for divine guidance for the President, who watched later on TV the progress of the space mission and the first footsteps on the moon.

Hatfield prayed for the safe return of Neil Armstrong, Edwin Aldrin and Michael Collins and for the thousands of support personnel who are "their brothers."

In the benediction, Buchanan asked that the Lord crown the Apollo 11 mission with success, bring the astronauts safely back and help the nation "in this experience to glorify You."

Dr. Smith told the assemblage his faith in mankind was renewed Sunday in the knowledge that countless millions in all nations were praying not so much that one brave astronaut might set foot on the moon, but that



Man on the Moon: Astronaut Neil Armstrong as he took man's first extraterrestrial steps.

## Luna 15 Now In Orbit Close To the Moon

© N.Y. Times News Service  
Moscow — The Soviet Union announced yesterday that the orbit of its unmanned spacecraft Luna 15 was again altered, bringing it to within 10 miles of the moon's surface.

Tass, the Soviet press agency, made the disclosure only minutes before the Apollo 11 moon module detached from its mother ship on its historic landing of men on the moon.

The new Luna 15 elliptical orbit created a mood of tension among observers here, who wondered if the latest correction was a prelude to an attempted lunar landing by the Russians.

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## Contrast at Houston Center

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Houston — Inside, they listened to the jumble of navigational numbers, the frightening bursts of static and silence, the clipped comments from two steady voices, and knots tightened in a thousand throats.

Yet outside the white buildings of the Manned Space Center campus, Sunday visitors strolled along the walkways with dream-like disregard.

A small boy shinnied up the leg of a life-size replica of the LM, the craft soaring down to its dusty landing, while his dad took his picture.

A blonde girl tripped on the steps and skinned her knee. An assembly of about 40 black children and their mothers, welfare recipients from Houston, gathered on the grass terrace beside the LM to demonstrate. One of them had a transistor radio, but she turned it off because the fuzziness bothered her.

Then came the words which released mortal men from the bonds of earth:

"Tranquility base here. The Eagle has landed."

The press center reverberated with cheers and whistles and pounding on desks.

In Mission Control, arms

waved and technicians jumped out of their seats.

In the bright sunlight outside, most of the people seemed hardly to notice. A few scattered cheers arose from those with portable radios, but most of the tourists were unaware of the precise climax.

Even as Neil Armstrong and Edwin E. Aldrin Jr. hovered a few feet above the lunar surface, the black children began to sing, led by a bearded man in an Afro shirt. An organizer broke out signs that said: "Good luck from the hungry children of Houston" and "41 cents a day is not enough."

The white tourists gawked at the demonstrators or ignored them. Mostly, they took pictures of their families before the dark-tinted office windows to watch newsmen and NASA functionaries at work.

An excited reporter burst out of the door and hollered at a flock of them: "Do you people realize that two men just landed on the moon?"

"Well, we kind of suspected that from all the noise we heard," Bill Orr, a visitor from

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## 'That's One Small Step For Man. One Giant Leap For Mankind'

Journal-Bulletin Wire Reports  
Space Center, Houston—Man came to the moon and walked its surface yesterday, July 20, 1969.

Neil A. Armstrong, 38, of Wapakoneta, Ohio, was the first man to set foot on its alien soil, warming in the lunar sunrise.

Armstrong's first words on the moon were:

"That's one small step for man. One giant leap for mankind."

The first men to reach the moon — Armstrong and his co-pilot, Col. Edwin E. Aldrin Jr. of the Air Force — brought their lunar landing craft to rest at 4:17 p.m. EDT on a level, rock-strewn plain near the southwestern shore of the arid Sea of Tranquility.

Less than seven hours later, Armstrong opened the landing craft's hatch, stepped slowly down the ladder and planted the first human footprints on the lunar crust.

Outside their vehicle the astronauts found a bleak world. It was just after dawn, with the sun low over the eastern horizon behind them and the chill of the long lunar night still clinging to the boulders, small craters and hills before them.

At 10:26 p.m. the two astronauts began venting the oxygen in the small cabin into the near vacuum of the lunar wilderness, letting the environment of the moon come in.

"The hatch is coming open,"

said Armstrong after he and Aldrin had waited for more than 10 minutes for the pressure in the lunar module to drop low enough to permit it to open.

Mission control gave the time for hatch opening at 10:40 p.m. EDT.

Then Armstrong emerged from the lunar lander named Eagle and started backwards down a ladder to the moon's surface.

"You're not quite clear," said Aldrin, watching his crewmate back out of the LM (Lunar Module) on his hands and knees.

"Okay, Houston, I'm on the porch," said Armstrong.

The first television view millions on earth saw was Armstrong's foot descending slowly. Then there was his full figure, shadowy, mostly a silhouette, but it was remarkably clear.

"Looking up at the Lem, I'm standing directly in the shadow now looking up at Buzz in the windows. I can see everything quite clearly," Armstrong said at 11:01 p.m.

"The surface is fine and powdered, like powdered charcoal to the soles of my boot . . . I can see the footprints of my boot in the fine particles," Armstrong reported.

He stepped first onto one of the four saucer-like footpads of his spacecraft. Then the moon. He was in the bitter cold of lunar shadows as the camera

caught the sight of his left foot pressing into the lunar soil.

Armstrong said the spacecraft's footpads had pressed only an inch or two into the dusty soil. His foot sank only a "small fraction — about an eighth of an inch" into it, he said.

His first steps were cautious in the one-sixth gravity of the moon. But he quickly reported, "There is no trouble to walk around."

Armstrong picked up a piece of the moon and put it in his pocket.

Aldrin saw a rock collection around the lunar lander of "every shape, regularity, irregularity, every variety you'd find," and "quite a few interesting colors."

This made Dr. Harold Masursky, chief of astrophysics for the U.S. Geological Survey — working in one of the science support rooms here — explain:

"They've hit a good spot to do collecting."

One of the first things Armstrong reported was: "The MESA came down all right."

This was the "modularized equipment storage assembly" — a trunk in the skin of the LEM — that held both the television camera and scientific equipment.

He was quickly giving scientists more information about the nature of the lunar surface than they have gained in all their recent years of poking at it with unmanned landers.

The back pack did cause

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## 'Tranquility Base, Here'

## 'The Eagle Has Landed'

© The Washington Post News Service  
Houston — In a spacecraft called Eagle, two Americans landed on the moon yesterday — the first humans in history to touch down on another heavenly body.

The majestic moment for astronauts Neil Armstrong and Edwin (Buzz) Aldrin came at 4:17 p.m. EDT when they set their four-legged wingless landing craft down in the moon's Sea of Tranquility.

"Tranquility base, here," Armstrong announced to a breathless world. "The Eagle has landed."

"You did a beautiful job," astronaut Charles Duke said from Houston's Manned Spacecraft Center. "Be advised there's lots of smiling faces down here."

"There's two of them down here," Armstrong replied. "And don't forget one up here," said astronaut Michael Collins in lunar orbit 70 miles above the moon surface.

The landing apparently wasn't an easy one — and was about four miles from the target point in the southwestern edge of the Sea of Tranquility, almost right on the lunar equator.

"We were coming down in a crater the size of a football field with lots of big rocks around and in it," Armstrong said about five minutes after landing. "We had to fly it high. Thousands of little one-

manually over the rock field to find a place to land."

The landing came about four miles west of the aiming target, but well within the designated area. An apparent error in some data fed into the craft's guidance computer from earth was said to have accounted for the discrepancy.

Suddenly the astronauts were startled to see that the computer was guiding them toward a possibly disastrous touchdown in a boulder-filled crater about the size of a football field.

Armstrong grabbed the manual control of the vehicle and guided it safely over the crater to a smoother spot.

A few minutes later, Aldrin gave a waiting world its first eyewitness description of the moon's surface.

"It looks like a collection of just about every variety of shapes and angularity," Aldrin said, "every variety of rock you could find."

"There doesn't appear to be too much color," he went on, "except that it looks as though some of the boulders are going to have some interesting color."

Armstrong then described their landing site in a little detail.

"It's a relatively flat plain," he said, "with a lot of craters of the five to 50 foot variety. Some small ridges 20 to 30 feet high. Thousands of little one-

and two foot craters. Some angular levies in front of us two feet in size. There is a hill in view ahead of us. It might be a half mile or a mile away."

Armstrong then described what he said were rocks fractured by the exhaust of Eagle's rocket plume.

"Some of the surface rocks in close look like they might have a coating on them," he said. "Where they're broken, they display a very dark gray interior. It looks like it could be country basalt."

Both men seemed to actually enjoy being in the moon's gravity, which is one-sixth that of earth's.

"It's like being in an airplane," Armstrong said. "It seems immediately natural to move around in this environment."

Armstrong and Aldrin apparently felt fine. Armstrong's heart rate went as high as 156 beats per minute at the time of landing, but dropped down into the 90s 15 minutes later.

The time leading up to the landing is difficult to describe, except to say it was as dramatic a time as any in memory.

It all began at 3:08 p.m. EDT when Armstrong and Aldrin — flying first and face down

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## Israel, Egypt Stage Fiercest Aerial Battles Since 1967

© N.Y. Times News Service  
Cairo — Full scale aerial warfare erupted yesterday between Israel and the United Arab Republic.

Israeli fighter bombers struck in successive waves at Egyptian military positions along the Suez Canal and Egyptian aircraft followed with attacks on Israeli radar stations and anti-aircraft missile sites in the Sinai Peninsula.

Cairo reported at nightfall that its anti-aircraft gunners and pilots had shot down 19 Israeli aircraft.

One Egyptian plane was shot down, Cairo reported. (In Jerusalem, Israeli offi-

The air fighting was the most severe since the six-day war two years ago.

The implications of the Israeli attacks, called "vindictive," were under "very serious study" last night by Egyptian leaders, according to a government spokesman, Mohammed H. el Zayyat.

(Official spokesmen in Jerusalem said they bombed and strafed Egyptian Sam ground-to-air missile bases, anti-aircraft positions and artillery

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Entertaining the folks at the Folk Festival yesterday, Donny Brooks and his harmonica.

—Journal-Bulletin Photo by JACK SPRATT

## Moon Tributes Close Festival

The ninth annual Newport Folk Festival ended last night with rain, an air of relaxed informality in the music and impromptu tributes to America's newest "folk" heroes, the moon explorers.

For this closing concert, 5,000 dedicated fans sat through a continuing drizzle which at least ended the dust bowl aspect of Festival Field.

Total attendance since the programs began Wednesday was 51,000, considerably below last summer's Folk Festival count of 73,700 and the all time record turnout of 80,000 at the turbulent Jazz Festival earlier this month.

But George Wein, producer of the festivals, said the festivals might be moved from Newport because the city may be too small to handle festival needs. A decision on whether to move may be made in August, he said.

He said he would like to

keep the festivals in the state but hold them on another site roomy enough for the festival organization to deal directly with problems such as parking, accommodations and crowd control instead of relying on the local community.

Shortly before the scheduled moon-walk a quarter-million miles away, topical folk singer Len Chandler tapped hastily composed lyrics to a microphone pedestal and sang an ode to "Moon Men Sailing the Black Sky's Silent Ocean."

Comparing their exploit to that of Columbus, Chandler sang "Say that in peace you came and in peace you will remain and our horizons will expand 10 light years more."

The evening had another tribute, too, in words and song that honored a Negro balladeer who died in 1949, Huddie Ledbetter, the legendary "Leadbelly."

The Louisiana native, an ex-

convict who was discovered in obscurity, composed "Rock Island Line," "Good Night Irene," "Old Cottonfields at Home" and a myriad of other folk songs.

Listed to join in the Leadbelly homage were such performers as Pete Seeger, Bernie Reagon, Sonny Terry and Brownie McGhee, remaining members of the Depression-era "Weavers" singing group, Fred Gerlach, like Leadbelly an expert on the 12-string guitar; Jesse Fuller and the Rev. Frederick D. Kirkpatrick.

The merry crewmen of Pete Seeger's Hudson River sloop Clearwater, as studiously picturesque a group as you might find on any stage, were heard in chorus and singly, drawing heavy applause.

Gordon Bok, a young man from Maine with a fine bass

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## Nixon Speaks To Walkers on Moon Surface

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three brave astronauts might  
again put feet upon the earth.  
"And my hope for mankind,"  
he said, "is strengthened in the  
knowledge that our intrepid  
President himself will soon go  
into orbit reaching only for the  
moon of peace."  
Five Reception Lines  
This was an allusion to the  
round-the-world trip which Nixon  
starts Tuesday to five Asiatic  
nations and Communist Roman-  
nia.  
After the services there were  
five reception lines, rather than  
the customary one. The Presi-  
dent and Mrs. Nixon, the  
preacher and his wife, plus  
Chief Justice and Mrs. Warren  
Burger, met guests filing  
through the State Dining Room.  
In the Blue Room, Vice Presi-  
dent and Mrs. Spiro T. Agnew  
and the Bormans received the  
guests. In the Green Room it  
was Secretary of State and Mrs.  
William P. Rogers and the Hat-  
fields. In the Red Room it was  
Secretary of Defense Melvin R.  
Laird with Buchanan.

## Radar and Computer Handle Navigation

Houston — How do men steer  
to the moon? They combine the  
most complex radar and com-  
puter equipment with the same  
type of sextants that sailors  
have used since the 18th cen-  
tury.  
Navigating through space is  
similar to steering across the  
open seas. Astronauts can find  
their way to the moon and  
back by taking sextant sight-  
ings of stars and the earth's  
horizons.  
In truth, though, the astro-  
nauts do very little of the ac-  
tual navigating to the moon.  
The route, the star sightings  
and the spaceship's speed are  
all fed into computers before  
the mission starts, and con-  
stantly updated from the  
ground during the flight.  
Any deviations are fixed by  
mid-course corrections. But the  
shots are so true that flight  
controllers scrubbed Wednes-  
day's correction and ran only  
a small one Thursday morning.  
The astronauts' sextant sight-  
ings — which gave them trouble  
Wednesday — are used to con-  
firm computer figures and to  
provide information they will  
need if communication with the  
ground breaks down.  
For most of the trip to the  
moon, the astronauts could sit  
back and leave the steering to  
ground controllers.  
They are needed to steer  
around the moon, however. Man  
does not know enough about the  
moon's complex gravitational  
forces to build an accurate  
model for computerized naviga-  
tion.  
They also will have to handle  
the key return from lunar orbit  
home toward earth, which takes  
place behind the moon and out  
of sight of radar.  
The heart of the spaceship's  
navigation is a complex inter-  
guidance system that senses  
changes in the spaceship's speed  
and position the same way that  
man's inner ear corrects his  
balance.

## Bright Spot Is Sighted By Armstrong

Houston — Astronaut Neil  
Armstrong spotted a bright,  
fluorescent-looking area on the  
moon Saturday, in an area  
where astronomers in recent  
years have seen flashes some  
think could be volcanoes.  
He was alerted by Mission  
Control here to a set of "lunar  
transient events" — temporary  
bright glows or flashes — ob-  
served by astronomers in sev-  
eral parts of the world Friday  
night in the area of the crater  
Aristarchus.  
Aristarchus was 454 miles  
north of the spacecraft track.  
Astronomers in 31 countries  
are manning a lunar interna-  
tional observers network — Pro-  
ject Lion — to keep an eye out  
for any such events during  
Apollo 11.  
"I'm looking north," Arm-  
strong reported, "and there's an  
area that's considerably more  
illuminated than the surround-  
ing area. It seems to have a  
slight amount of fluorescence to  
it — a bright area around the crater  
is quite bright."  
Project Lion coordinators at  
the Smithsonian Astrophysical  
Observatory in Cambridge,  
Mass., promptly alerted their  
worldwide observers. An observ-  
atory in Bochum, Germany, soon  
confirmed Armstrong's report.  
Hundreds of such events have  
been seen on the moon by as-  
tronomers, 40 per cent of them  
in the Aristarchus area.  
Many scientists think they  
may be some kind of fluores-  
cent effect caused by the heat-  
ing of solar particles on parts  
of the moon.  
But some think they may be  
live volcanic activity — out-  
pourings of smoke and gas —  
caused by the earth's tidal pull  
on the crust of the captive  
moon. Prominent among these  
is Soviet Prof. Nicolai Kozmyev,  
who himself spotted some of  
the most active events.

## Brown Professor Gets Space Post

Bruno J. Giletti, a Brown Uni-  
versity professor of geological  
sciences, has been named a  
member of the board of trustees  
of the Universities Space Re-  
search Association, an organiza-  
tion for the advancement of  
space research.  
As a trustee, Professor Giletti,  
with other board members, will  
be responsible for the establish-  
ment of research laboratories  
concerned with space science  
and technology. He will also  
be entitled to use facilities of  
the Manned Space Center in  
Houston.

## Europeans Entranced By Flight of Apollo

Paris — Not since Charles A.  
Lindbergh flew the Atlantic 42  
years ago has Europe hailed an  
American achievement with  
such enthusiasm, fascination  
and abandon as it has in follow-  
ing the Apollo 11 moon flight.  
Lindbergh's flight brought the  
continents closer together and  
now Neil Armstrong and his  
crew are bringing the planets  
closer together — with the  
added wonder, of course, of do-  
ing it all on television for a  
worldwide audience.

The European mood was well  
expressed by Alain Bosquet,  
writing in the Paris daily Com-  
bat:  
"As far as I am concerned, I  
welcome the fact that the moon  
is being conquered by Ameri-  
cans. What interests me pri-  
marily is the attitude of the  
conquering nation, if I dare call  
it that. The Americans — both  
those of NASA and the general  
public — consider rightly the  
event as a triumph of technol-  
ogy and effectiveness.  
"For the remainder, they  
spare us philosophical con-  
siderations of which we have  
nothing to do... one cannot  
imagine an attitude more  
simple, more modest, more  
sympathetic, more respectful of  
the neighbor's intellectual  
rights.  
"No propaganda, no brain-  
washing, no out-of-place pride  
among those men... imagine  
China or Russia in a similar  
situation."  
"The Americans will cele-  
brate the feat as an event that  
belongs to them but which be-  
longs just as well to all man-  
kind, without presumptuous-  
ness of posing as the am-  
bassadors of the species. That  
is self-evident and needs not to  
be underscored."

The state television networks  
in Poland and Czechoslovakia  
carried the launching live last  
Wednesday and were expected  
to carry at least part of the  
live transmission of the moon  
walk. This, perhaps, forced the  
hand of the Soviet authorities  
who gave the launching an un-  
usual 10 minutes of television  
last Wednesday night and have  
continued to give coverage  
which has been brief but more  
than ever before.

For Europeans it remains a  
mystery why the Russians  
chose the moment of the Ameri-  
can launch to put up their own  
Luna 15. If the Russians wanted  
to emphasize to the world how  
far behind they are in space  
technology and how secretive  
and untrusting their society,  
they could not have chosen a  
better way of getting the  
message across to the rest of  
Europe and the world, it is  
being said.

## 'The Eagle Has Landed'

Continued From Page One  
— fired up their landing craft's  
descent engine for the first time.  
Burning the engine for 27 sec-  
onds in what amounted to a  
braking maneuver to slow it  
down and start it falling, the  
two men were behind the moon  
at the time and out of radio  
link with earth.  
It wasn't until 3:47 p.m. that  
the men at the Manned Space-  
craft Center heard that Arm-  
strong and Aldrin were on their  
way down — and they heard  
it first from Collins, who flew  
from behind the moon in the  
command craft above and in  
front of the landing craft.  
"Columbia, Houston," said  
astronaut Duke from the Mann-  
ed Spacecraft Center. "How did  
it go?"  
"Listen, babe," replied an ex-  
cited Collins. "Everything's go-  
ing just swimmingly. Beautiful."  
Two minutes later, Duke  
made radio contact with Arm-  
strong and Aldrin, as they flew  
into range.  
"We're standing by for your  
burn report," Duke said.  
"The burn was on time," Al-  
drin told him.  
"Roger, copy," Duke said.  
"Looks great." At this point,  
the men in the Mission Control  
Center bent their backs to the  
toughest job they'd ever had  
— following the two spacecraft  
at all times, to give them the  
guidance they would need on  
the Eagle's descent to the moon.  
"Play It Cool"  
Looking around a very quiet  
mission control room, flight di-  
rector Gene Kranz simply said:  
"We're off to a good start. Just  
play it cool."  
Flying down and westward  
across the moon's surface, the  
Eagle suddenly dropped out of  
radio contact with earth, but  
in moments was back on again.  
"I don't know what the prob-  
lem was," Aldrin said when he  
came back on. "We started yaw-  
ing and we're picking up a little  
oscillation rate now."  
Still falling, the Eagle was  
coming up over the eastern re-  
gion of the Sea of Tranquility  
at an altitude of 53,000 feet  
and only minutes away from  
its second critical maneuver —  
the powered descent to the lunar  
surface.  
"Five minutes to ignition,"  
Duke radioed. "You are go for  
a powered descent."  
"Roger," Armstrong replied  
softly. "Understand."  
At 4:05, Armstrong began  
throttling up the engine to slow  
the Eagle down again, to drop  
it down toward the lunar sur-  
face.  
"Light's on," he said. "Des-  
cent looks good."  
Two minutes later, it was  
plain to everybody listening that  
they were indeed on their way  
down to the moon.  
"Show an altitude of 47,000  
feet," Armstrong said. "Every-  
thing looking good."  
Warning Lights  
Still calm, Aldrin said he  
noticed a few warning lights  
coming on inside the spacecraft.  
"I'm getting some AC voltage  
fluctuations," he said. "And our  
position checks downrange show  
us to be a little long."  
"You're looking good to us,  
Eagle," Duke answered. "You  
are go to continue powered des-  
cent. Repeat. You are go to  
continue powered descent."  
"Altitude 27,000 feet," Aldrin  
read off. "This throttle down  
is better than the simulator."  
Down they came, still falling  
but slowing at the same time.  
At 21,000 feet, their speed had  
fallen to 800 miles an hour.

## Astronauts Getting Nearly Normal Meals

New York — It was flavors and value, but reducing  
the weight by up to 90 per cent.  
Many freeze-dried foods have  
been put in pouch-like plastic  
bowls to which the astronauts  
add water, rehydrating the food.  
In general, the food on the  
Apollo 11 mission does not dif-  
fer appreciably from that on  
recent flights. The menu still  
consists of the "spoon-and-bowl"  
dishes; freeze-dried, ready-to-  
eat cubes and newer "wet-pack"  
foods that are cooked and  
stored in flexible cans made of  
metal foil and plastic.  
A typical menu includes  
Canadian bacon and applesauce,  
corn flakes and peanut cubes for  
breakfast; shrimp cocktail, ham  
and potatoes (a wet-pack),  
fruit cocktail and date fruit-  
cake for lunch, and beef stew,  
coconut cubes, banana pudding  
and grape punch for supper.  
Fresh fruits and snacks, in-  
cluding candy bars, dried fruit  
and cheese, are new to the menu.  
Fresh bread, which was part  
of the diet on the last two space  
flights, is aboard again, but ac-  
companied by meat and fish  
salads packaged for the first  
time in lightweight metal cans.  
The cans are part of a con-  
tinuing experiment with pack-  
aging, according to Dr. Malcolm  
Smith, chief of nutrition for the  
Apollo program.  
Although man's basic food re-  
quirements in space do not  
differ from those on earth, Dr.  
Smith said a low-residue or low-  
bulk diet was preferred be-  
cause it produced fewer gases  
and solid wastes.  
Favored low-bulk recipes in-  
clude spaghetti, which also has  
high fat and carbohydrate val-  
ues — a necessity if the astro-  
nauts are to carry a large  
enough food supply in the lim-  
ited space available inside the  
capsule.  
"One of the penalties the  
crews are paying," Dr. Smith  
said, "is that as we add more  
natural foods — which are not  
necessarily low in residue —  
they create a bigger problem  
for our primitive waste-manage-  
ment system."  
steerable," said Duke, who had  
just replaced Evans. "How does  
it look?"  
"Eagle has wings," was  
Armstrong's simple reply.  
For awhile, all three men did  
was look each other over, to  
make sure the two spacecraft  
were shipshape.  
"Check that tracking light,  
Mike," Armstrong told Collins.  
"Okay," Armstrong said next.  
"I'm ready to start my yaw  
maneuver if it suits you, Mike."  
Aldrin got on next, reading  
off what seemed like endless  
instrument checklists. For 15  
minutes, he talked on, never  
once missing a word, sounding  
totally composed, like a man  
taking a stroll.  
At 2:12 p.m., Collins fired his  
tiny onboard thruster jets to  
give the two spacecraft even  
more distance between them.  
"Thrusting," Collins said,  
"Everything's looking  
good."  
Drifting apart, the two  
spacecraft were 1,000 feet away  
from each other in moments.  
Then Collins took a radar check  
on their separation distance.  
"I got a solid lock on it,"  
he said. "It looks like point  
27 miles" — about 1,400 feet.  
"Upside Down"  
Collins said to  
Armstrong when he'd looked out  
his window. "You're upside  
down."  
"Somebody's upside down,"  
Armstrong told him.  
Just then, Collins asked  
Armstrong: "Put your tracking  
light on, please."  
"It's on, Mike," answered  
Aldrin.  
"Give us a mark when you're  
at seven tenths of a mile," Duke  
said to Collins from the ground.  
Moments later, Duke told Col-  
lins the big radars on the ground  
showed the two spacecraft seven  
tenths of a mile apart.  
"Roger," Collins said. "I'm  
oscillating between point 69 and  
seven tenths."  
At 2:59 p.m. Houston gave  
the go-sign for the first  
maneuver (the so-called descent  
orbit insertion burn) to take  
them down to the surface.  
"Eagle," Duke said, "You are  
go for DOI."  
"Roger," replied Aldrin mat-  
ter-of-factly. "Go for DOI." And  
while the whole world listened  
the majestic drama began to  
unfold.  
SNORING IS FATAL  
Berlin — (AP) — A 71-year-  
old resident of a West Berlin  
retirement home beat his room-  
mate to death with a chair. He  
told police the other man's  
snoring made him nervous.

## 'The Eagle Has Landed'

Continued From Page One  
"You're looking great to us,  
Eagle," Duke said.  
A minute later, it was 500  
miles an hour, then it was sud-  
denly down to less than 90 miles  
an hour.  
"You're looking great at eight  
minutes," Duke told them, then:  
"You're looking great at  
nine minutes."  
At this point, the two explorers  
began their final approach  
to the moon's surface, coming  
in sideways and downwards only  
5,200 feet above the moon.  
When the Eagle dropped to  
4,200 feet, Duke broke in on  
the radio, his voice tense and  
excited.  
"Eagle, you are go for land-  
ing," he said.  
"Roger, understand," a calm  
Armstrong replied. "Go for land-  
ing."  
Final Approach  
"Eagle, you're looking great,"  
Duke said. "You're go at 1,600  
feet."  
At that, Armstrong began  
rapidly to read off his altitudes  
and pitch angles — the angle  
at which the spacecraft was  
falling toward the lunar surface.  
"Three hundred feet," he said.  
"Down three and a half. A hun-  
dred feet. Three and a half  
down. Okay. Seventy-five feet.  
Looking good. Down a half."  
"Sixty seconds," Duke said.  
"Lights on," Armstrong re-  
plied. "Forty feet. Kicking up  
some dust. Great shadows."  
"Four forward," he went on.  
"Drifting to the right a little."  
"Engine Stop"  
His voice rose a little, as  
he turned off the engine for  
the first time and started free-  
falling to the moon.  
"Okay, engine stop," he said.  
"Override off. Engine arm off."  
There was a pause — then  
the first voice came from the  
surface of the moon.  
"Houston, Tranquility base  
here," Armstrong announced.  
"The Eagle has landed."  
"You've got a bunch of guys  
about to turn blue," Duke told  
him. "Now we're breathing  
again."  
"Okay, stand by," Armstrong  
replied. "We're going to be busy  
for a minute."  
Collins broke in from his lone-  
some spot 70 miles above the  
moon, wanting in on the historic  
conversation.  
"He has landed," Duke in-  
formed him. "Eagle has landed  
at Tranquility."  
"Good show," Collins said.  
"Fantastic."  
"We Thank You"  
Five minutes after touchdown,  
Duke told them things looked  
good enough for them to stay  
there a while.  
"We thank you," Armstrong  
answered.  
It was then that Armstrong  
told Houston he had had to  
fly the spacecraft in manually  
to avoid a football-sized crater  
and a large rock field.  
"It really was rough over the  
target area," he said. "It was  
heavily cratered and some of  
the large rocks may have been  
bigger than 10 feet around."  
He said he wasn't sure of  
his location on the moon either.  
"Well," he said, "the guys who  
said we wouldn't be able to  
tell exactly where we are the  
winners today."  
Slight Angle  
Armstrong reported that the  
four-legged spacecraft had land-  
ed on a level plain and appeared  
to be tilted at an angle no  
greater than 4.5 degrees.  
Again, Collins broke in, eager  
to talk to the two moon landers.  
"Say something," a suddenly re-  
laxed Duke told him. "They  
ought to be able to hear you."  
"Roger, Tranquility, base,"

## 24 Boy Scouts Travel 53 Miles on Bicycles

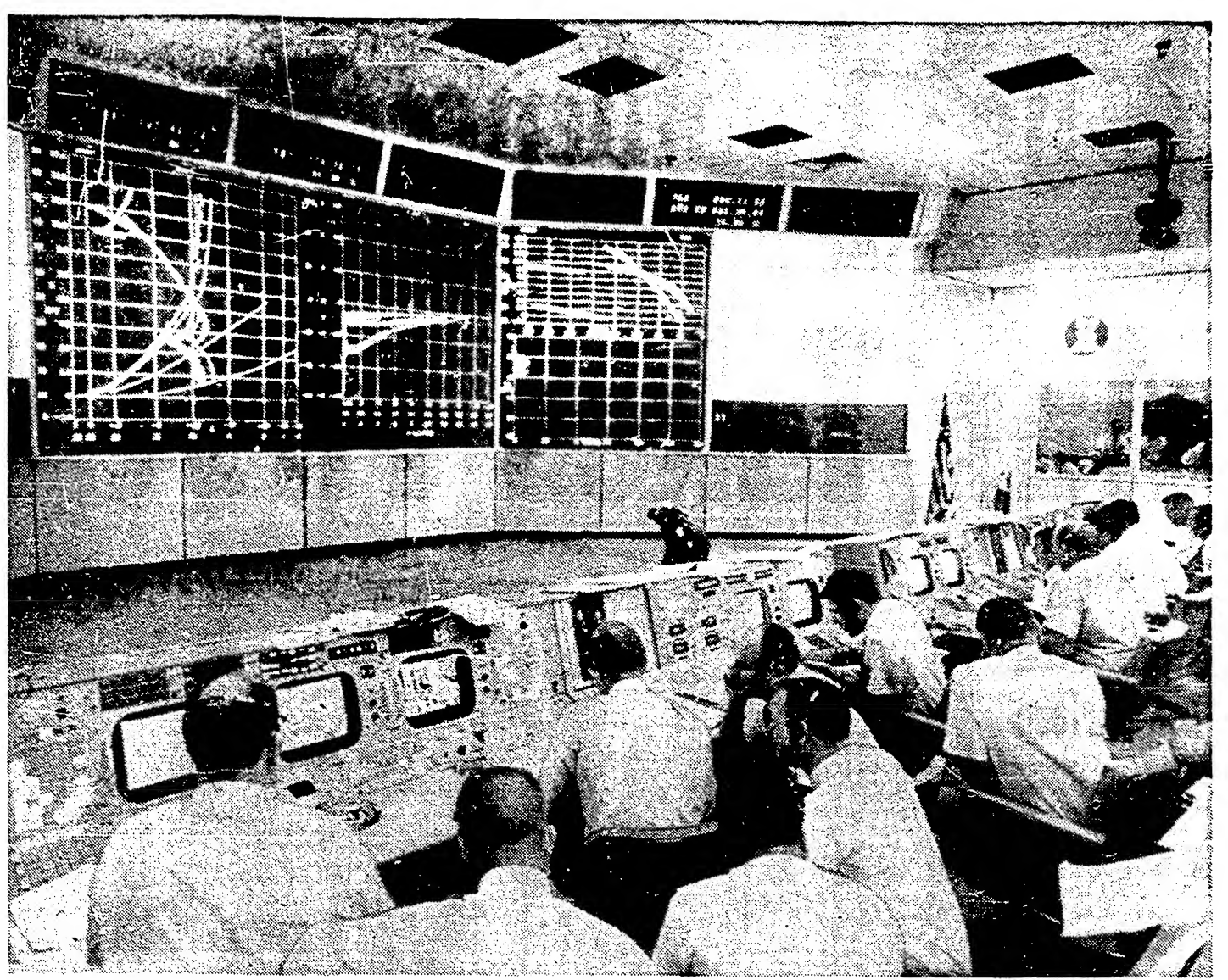
Twenty-four members of Boy  
Scout Troop 14 of North King-  
stons pedaled 53 miles yesterday  
on a bicycle trip that ended  
at Camp Yawgong in Rockville.  
The youths, who made the  
trip to complete the require-  
ments for a merit badge in  
bicycling, left at 8:15 a.m. from  
a shopping plaza on Post Road  
and arrived at the camp at  
3 p.m.  
During their trip, they lunched  
at Stepping Stone Falls at the  
edge of Acadia State Park.  
They were accompanied by  
Jeff Skog, Troop 14 committee  
member, with whom they had  
already logged 150 miles of bicy-  
cling in the past three months.  
The merit badge requires 200  
miles of bicycling, according to  
Donald Spatcher, another troop  
committeeman.

## Arson Is Suspected In Springfield Fire

Springfield, Mass. — (AP) —  
Fire officials suspect arson in  
a blaze that struck a two-story  
residence Saturday, forcing a  
couple to flee.  
It was the fourth such suspi-  
cious fire in recent weeks.  
Mr. and Mrs. Nathan New-  
man, both in their 70s, escaped  
unharmed when a fire began at  
the rear porch of their house  
and spread to the attic, causing  
heavy damage.  
DRIVER KILLED  
Greenwich, Conn. — (AP) —  
Westley D. Finkle Jr. of New  
York City was killed Saturday  
night when his car went off a  
street here and hit a tree.

## It's Morning — Moon-Time

Houston — In "moon time"  
it was about 7 a.m. when the  
Apollo 11 lunar module landed  
yesterday.  
The lunar day is four weeks  
long, with two weeks of sear-  
ing sunlight and two weeks of  
frigid darkness.  
When the module landed the  
sun was 10.5 degrees above the  
horizon, having risen some 20  
earth hours earlier.  
When the module lifts off the



Mission Control at Touchdown: This was the scene in Mission Control at Manned Spacecraft Center in Houston, Tex., showing the giant tracking screen at the time of touchdown of the Apollo 11 lunar module. Module is indicated by the white dot in lower left of screen. —Associated Press Wirephoto



## 2 Astronauts Take First Steps on Moon

Continued From Page One

some problem in mobility. Its high center of gravity on his back tended to "pull him back," Armstrong said. It was hard to bend down. And the astronauts moved with glacial slowness. They will look forward to getting the more mobile space suits now being developed for future landings.

Aldrin also soon reported that the "powdery" surface of the lunar rocks made them "rather slippery."

On the ground, the chief flight surgeon, Dr. Charles Berry, reported: "The crew is doing well. The data is good" — the readings from heart tracings and oxygen use and cooling inside the space suit.

"Armstrong began gathering the contingency sample of lunar rocks — to be man's first — and quickly made a report that must have made every geologist and lunar scientist in the world sit up:

"Be advised that a lot of the hard rocks appear to have vesicles in the surface."

"Vesicles" are little holes once filled by gas. This means these are chunks of once-gas-filled volcanic lava coughed up to the surface by powerful internal events — a clue that seemed to say: "Much of the moon may be volcanic."

The men kept working and evaluating — preparing the way for future moon-men was one of their main jobs. Walking "several hundred feet might be tiring," Aldrin reported, "but this may be a function of the suit."

Armstrong moved slowly in the strange world of gravity only one-sixth as strong as earth's, but he appeared to have no difficulty.

The dark outline of one of the lander's four legs was clearly visible on television against the bright background of the sun.

Armstrong appeared as a dark shadow.

Aldrin remained in the lunar module, but he wore a similar moon suit and was preparing to follow Armstrong onto the moon.

Armstrong weighed only 60 pounds on the moon, but on earth wearing the same heavy backpack and thickly lined spacesuit he would have weighed 360.1 pounds.

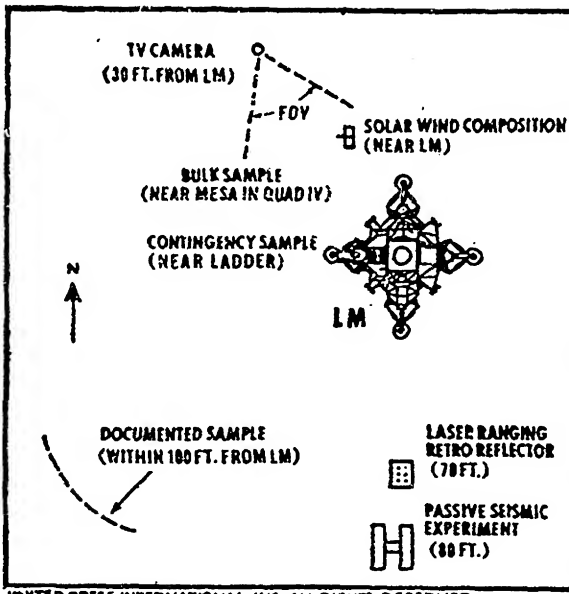
At 11:06 p.m. EDT, he reached down with a sample collector that looked like a butterfly net. He said as he tried to scoop up two pounds of soil, the surface appeared hard and very cohesive.

"It has a stark beauty all of its own. It's much like the desert of the United States. It's different but its very pretty out here," Armstrong said.

Television showed Armstrong's arms working at something on the front of his spacesuit. He apparently was unpacking a camera. He turned, taking pictures.

"Ready for me to come out?" Aldrin asked at 11:10 p.m. "Stand by just a second," Armstrong replied.

The camera that televised the historic moment to earth was mounted inside an equipment bay that Armstrong opened as



Location of instruments, relative to the Lunar Module, that were placed on the moon by the Apollo 11 astronauts are shown in this drawing. The television camera 30 feet from the module enabled people around the world to view man's first steps on moon.

—UPI Telephoto

he climbed down the nine rung ladder.

"The descent engine did not leave a crater of any size. We're on a very level place here," Armstrong said.

"OK, you saw what difficulties I was having," Armstrong told Aldrin as he guided him out of the ship's hatchway.

Armstrong stood at the foot of the ship's ladder as Aldrin began his climb down.

"You're right at the edge of the porch," Armstrong told Aldrin.

Although Armstrong's foot appeared to hit the surface at 10:56:31, the space agency gave 10:56:20 as the unofficial time of his first footstep on the moon.

Aldrin joined Armstrong on the surface at 11:16 p.m. "Magnificent desolation," said Aldrin.

"Hey Neil, didn't I see some purple rocks," Aldrin said a few minutes later.

"Find a purple rock?" Armstrong asked.

"Yep," Aldrin replied. He said some rocks were sparkly.

Aldrin said he thought one rock was biotite, which is a silicate made of magnesium, iron, aluminum and potassium. It is usually brown on earth.

Aldrin walked about the surface as he looked for the stiffness of his pressurized suit.

"Hey, you're standing on a big rock now," Armstrong told Aldrin.

Earlier, the two astronauts were granted permission by ground control to step outside the spacecraft several hours earlier than scheduled.

Armstrong first told mission control he hoped to start outside at 9 p.m. EDT, but that later slipped to 10 p.m. and then to 10:30 as the astronauts' chores delayed the moment.

"We'll support you any time," said mission control.

Armstrong and Aldrin began their preparations at 7:42 p.m. Donning their heavy, double-visor space helmets, their oxygen-providing backpacks, the other accoutrements of survival in a world so unlike their own.

Armstrong and Aldrin were not visible to the third Apollo 11 astronaut, Air Force Lt. Col. Michael Collins locked in a lonely patrolling orbit in the command ship Columbia, some 69 miles above them.

Armstrong removed the television camera from the lunar module stowage area and car-

## Tass Gives Report On Moon Landing Just Minutes Later

Moscow — (AP) — The Soviet news agency Tass reported the lunar landing yesterday within minutes of the touchdown by U.S. astronauts.

In a dispatch from New York, it said: "The lunar module of the spaceship Apollo 11, with N. Armstrong and E. Aldrin on board, has touched down on the moon in the Sea of Tranquility. The astronauts are still in the module. Their walk out onto the surface of the moon is planned for the morning hours of July 21."

## Luna 15 Now In Orbit Close To the Moon

Continued From Page One

perhaps even in the same vicinity where the Americans landed.

Soviet officials had given assurances to the Americans that Luna 15 would not interfere with the Apollo mission, but the new orbit led to renewed speculation that the Russians might try to land the Luna craft and return it to earth with moon rock in an effort to demonstrate that unmanned craft are equal to, if not more valuable than, manned ships.

As usual, Tass gave no information on the eventual goal of the Luna 15 craft. It said only that "the automatic station Luna 15 continues scientific exploration in the near moon outer space."

Week Ago Yesterday

Tass said the latest maneuver took place at 5:16 p.m. Moscow time yesterday (10:16 a.m. EDT).

Luna 15 was launched a week ago yesterday and went into moon orbit on Thursday. Saturday night Tass announced that its orbit had been altered to between 136 miles at the maximum and 59 miles minimum from the moon surface.

Yesterday's correction brought the craft into an orbit ranging from 68.3 miles to 9.94 miles from the lunar surface.

The orbit's inclination to the plane of the lunar equator was given at 127 degrees, a slight change from Saturday's 126 degrees. In its new orbit, Luna 15 was circling the moon every hour and 54 minutes, Tass said.

The previous orbit took two hours, 34 minutes.

"According to the data of the telemetric information, the systems and scientific equipment on board the station are functioning normally," Tass said.

When Luna 15 first was launched, Tass said its mission was to conduct research in the moon and near moon space, leaving open the possibility of a moon landing.

Minimum Attention

Many observers here believed that Luna 15 would continue the research started by previous unmanned craft in the Luna series that orbited the moon but did not return to earth.

But Communist sources have insisted for months that the Soviet Union was planning to land an unmanned craft on the moon and then return it to earth.

So far, Soviet news media have given minimum attention to Luna 15 and most Russians are much more aware of the Apollo 11 mission.

Moscow radio has moved short news items on the progress of the Apollo mission but Russians wanting a full account of the flight had to have good short wave sets and a knowledge of a foreign language.

Russian language broadcasts from the Voice of America and the British Broadcasting Corporation were heavily jammed as usual.

The actual landing of the Apollo lunar module was not reported immediately on radio, but later Moscow radio briefly announced the lunar touchdown.



Pope Paul VI viewed lunar landing area yesterday from Castel Gandolfo, Italy.

—Associated Press Wirephoto

## Half Billion Watch Moon Show

By THE ASSOCIATED PRESS

Back on earth yesterday, President Nixon and half a billion other people watched the moon show on television, experts estimated.

Another billion couldn't see it because it was not shown in the Soviet Union or Red China. The remaining two billion earthlings had no sets.

Nixon watched the televised news of the landing of the lunar module in his working office in the Executive Office Building next door to the White House.

There were prayers for the astronauts in churches throughout the United States and elsewhere.

In the United States, CBS producer Robert Wussler estimated the TV audience for the moon walk might be 150 million, 95 per cent of total saturation.

Americans watched in homes, bars, night clubs, prisons, and on special sets or screens at race tracks, parks, plazas, airports and in one murder trial courtroom.

Three 9-by-12-foot screens were put up in New York's Central Park, where the city staged an all-night moon vigil for tens of thousands.

People were asked to come in "symbolic" white clothes to watch the TV pictures beamed on the huge screens along with cartoons and movies of past imaginary moon trips.

The program included a syn-

thetic aurora borealis, a dance performed in a moon bubble under black light, and the dropping of colored parachutes from a 19th century balloon by "parachute sculptor" Yukihisa Isobe.

Other big TV screens were erected in Rockefeller Center, where a life-size model of the moon module was displayed, and at Kennedy Airport, less crowded than usual because people apparently stayed home to watch their own sets.

In Las Vegas, one casino had topless showgirls pour champagne from hundreds of bottles uncorked at the moment the moon module landed.

Casinos in Reno, Lake Tahoe and Las Vegas put batteries of color TV sets throughout the gambling rooms. One public address system asked patrons "to refrain from their pursuit of jackpots" during the crucial moon approach.

Centennial Race Track near Denver put color TV sets in the stands so horse players could watch moon developments.

In Charleston, W.Va., all nine races Monday night at Shenandoah Downs were named for the moon venture: the Neil Armstrong, the Edwin Aldrin, the Michael Collins, the Perfect Course, the Lunar Lander, the Eagle, the Columbia, the A-OK and the Homeward Bound.

The warden of San Quentin Prison announced TV could run past the usual 11 p.m. curfew

for 1,100 prisoners in two honor blocks.

Disneyland at Anaheim, Calif., reported unusually good business for its "Flight to the Moon" ride.

In Nashville, Tenn., Criminal Court Judge Allen R. Cornelius ordered a color TV set brought to a courtroom, so a murder trial jury of 10 men, two women and two male alternates, could watch the moon events.

Disc jockeys at radio station WGNR in Bloomington, Pa., played only songs with moon in the lyrics.

Near Pittsburgh, Supervisor Edward Ingram of suburban Moon Township announced that Monday night he will dress up as an astronaut, go up in a helicopter and land on a baseball field for moon ceremonies, a parade and fireworks for the 15,000 citizens.

In Carson City, Nev., Carl Hocker, warden of the state's medium and maximum security prisons, said almost all the 667 prisoners watched television.

About 35,000 persons watching the Washington Senators and the New York Yankees play baseball at Yankee Stadium learned of the landing when the words "They're on the moon" flashed on the scoreboard.

Officials stopped the game for a moment of silent prayer for the astronauts' safe return, then the crowd joined in singing "America the Beautiful."

## Pontiff Urges World Not to Forget Wars

Castel Gandolfo, Italy — (AP) — Pope Paul VI warned Sunday that the wonders of space technology should not distract attention from four wars plaguing the earth.

In a strongly worded speech at his weekly Sunday noon blessing, the Pope called July 20 "a great day, a historic day for humanity, if it is true that tonight two men will set foot on the moon."

"Admiration, enthusiasm and passion for instruments, for the products of man's hand fascinate us, perhaps to the point of madness," the Pope told thousands of pilgrims at his summer palace. "But this is the danger: we must beware of this worship."

The Pope also noted that "amid the joy of this fateful day... we must not forget the need and the duty that man has to dominate himself."

"There are still, we know, three wars in progress on the face of the earth: Vietnam, Africa and Middle East. A fourth has now been added, with thousands of victims between El Salvador and Honduras, in these very past few days. And then hunger still affects entire populations."

Pope Paul hailed the Apollo 11 astronauts later as conquerors of the moon and said man looks forward to "the expansion of endless space and a new destiny."

The 71-year-old pontiff, who followed the lunar landing on color television, declared:

"Honor, greetings and blessings to you, conquerors of the moon, pale lamp of our nights and our dreams! Bring to her, with your living presence, the voice of the spirit, a hymn to God, our creator and our father."

"We are close to you, with our good wishes and with our prayers. Together with the whole Catholic Church, Pope Paul VI salutes you."

"We are close to you, with our good wishes and with our prayers. Together with the whole Catholic Church, Pope Paul VI salutes you."

## 5 Are Injured As Stolen Car Strikes House

Five young persons were injured, none seriously, when a stolen car in which they were riding eluded pursuing police cars early yesterday but smashed against a Fox Point house minutes later.

The chase began on Waterman Avenue in East Providence at 2:05 a.m. when the operator of the car failed to stop at police request. The chase continued at a high speed on Route 185 into Providence.

East Providence police followed the car down the South Main Street exit ramp, on to Benefit Street and then Power Street where they lost track of the car. Residents of the area said they heard several gunshots.

Police discovered the car smashed against a house at 4 Wells St., near Williams Street. While searching the area they discovered two girls at 31 Wells St. who asked them for medical assistance.

The girls, a 14-year-old from Providence and a 16-year-old from East Providence, were treated at Rhode Island Hospital for minor injuries.

During the search, police apprehended a 14-year-old East Providence boy on Foster Street near Benefit Street. His injuries were "very slight," East Providence detectives said.

Police yesterday were seeking a second youth and a young adult in connection with the incident. Both were injured, according to police information.

East Providence police said yesterday the three juveniles may be sent to Family Court.

## Landing on Moon Linked by TV to Famous Location

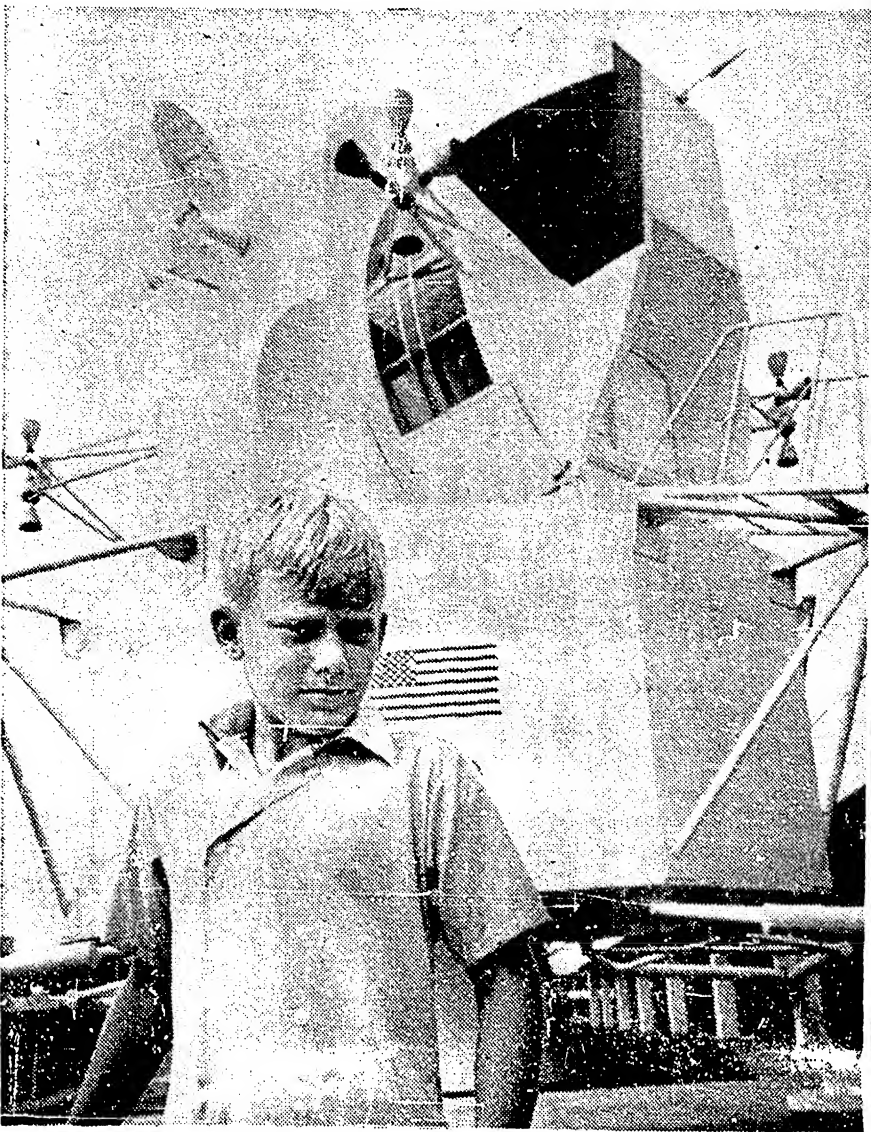
Kill Devil Hills, N.C. — (AP) — When the Apollo 11 astronauts landed on the moon, they were linked by television to the spot where powered flight began 65 years ago.

K. A. Wing, in charge of National Park Service installations on the Dare County coast, announced that television sets were installed adjacent to the stone marker located at the site where Orville and Wilbur Wright flew their first powered airplane on Dec. 17, 1903. He said the memorial also remained open to the public last night during the moon landing phase of the mission.

The special service was initiated at the request of flight enthusiasts, he said.

\$225 Taken in Break

The Springmeier Corp., 310 Canal St., was entered Saturday night and \$225 was stolen from a locked file cabinet which was forced open. William T. Jarvis of 25 Berwick Place, East Providence, an employee, told police. Police said it had not been determined how the building was entered.



Visiting Dad's Shop: Andrew Aldrin, 10, in front of a model of the Apollo 11 Lunar Module at Manned Spacecraft Center, Houston, Tex. His father was in the module.

—Associated Press Wirephoto

## Moon Walker's Costume

© N.Y. Times News Service

Houston — The proper costume for a stroll on the moon weighs more than the man who wears it and is almost as self-sufficient as a space ship.

This lunar space suit is more than a garment because it must carry its own atmosphere and offer protection against total vacuum, extremes of temperature and the risk of puncture by a hurtling micrometeoroid.

Yet, it must be flexible enough so that the wearer can walk, climb, dig and set out instruments on the lunar surface. Its flexibility is just great enough to meet that need. An astronaut in the lunar suit can only reach an inch or so above his head and only as far down as his knees. He couldn't stoop over to tie a shoelace — even if he had shoelaces.

Probably he couldn't get up unaided if he fell down.

Each moon explorer's suit weighs, altogether, 183 pounds — earth weight. The moon walker, Neil A. Armstrong and Edwin E. "Buzz" Aldrin Jr., each weighed about 165 pounds when they left home. On the moon everything weighs one-sixth its weight on earth.

The materials of the space suit and its life-support package include plastics, synthetic fibers, artificial rubber and several metals, including silver and gold.

The moon-walk costume carries its own supply of electricity, water and oxygen. It has a fan, a refrigeration element and a sophisticated two-way radio. Even when the walker is not talking, this keeps up a steady chatter of automatic signals to the lunar module and thence to earth.

For the guidance of mission controllers in Houston, it sends nine different kinds of information: flexibility, oxygen supply pressure, suit pressure, four other readings of the temperature and pressure in the life support system, and the walker's electrocardiogram — the natural electrical activity of his heart.

The items were chosen to allow the mission controllers to maintain their own independent check on the moon explorers' safety and level of exertion. Much of the latter can be inferred from heart action and oxygen consumption.

The space suit and its portable life support system were developed separately, by different companies, but for a moon walk each is as necessary as the other.

The life support system, made by the Hamilton Standard Division of United Aircraft Corporation, Windsor Locks, Conn., is worn as a back pack. It contributes about 120 pounds to the total suit weight. The pack's upper section, containing the radio antenna and an emergency oxygen supply, is detachable. It gives an extra 30 minutes oxygen supply to augment the main system's capacity of roughly four hours without recharging.

Another separate unit, worn on the chest, carries the radio controls and instrument displays showing the walker's oxygen pressure and other critical readings.

In the main pack assembly a little more than a pound of oxygen is stored in a tank at a pressure of 1,000 pounds per square inch. Norman L. Ballis, an engineer at Hamilton Standard, said this is enough to allow the astronaut to generate 4,800 BTU's (British thermal units) of energy. This is enough for about four hours, more or less, depending on how much energy a moon explorer exerts,

less aware of the hazards involved. They did not feel the need to hover with the spacecraft on each zig and zag of its descent the way the insiders did.

In a sense, the gathering also demonstrated that a special hope is not to be fulfilled—that the triumph of Apollo 11 would pull everyone together and erase the ugliness which divides the country.

On the lawn, while the demonstrators sang, "He got the lunar module in his hands. He's got the astronauts in his hands," the anger of a space-program employee boiled over.

"Are you people hungry? Here's a dollar" shouted John Harrison from the ring of bystanders. He pulled dollar bills from his wallet and waved them at the black demonstrators. "If that ain't enough, here let me feed you."

"Take us out tomorrow to one of those big cafeterias where we can't go," a black woman yelled in reply.

"Why don't you go out and work and get yourself some food?" Harrison shouted back.

He is a white man who works for AV Corp., one of the thousands of NASA contractors who helped make the moon landing happen. He was "damn mad," he said, because he felt the welfare rights organizations spoiled the moment.

The confrontation ended suddenly. Someone in the crowd accused Harrison of speaking for the John Birch Society, but others applauded him.

Hulbert James, the leader of the demonstrators, handed him a stack of literature proclaiming that this should be the last space shot until America's hungry are fed. Harrison drifted off.

Outside, a light rain started and the black children huddled under the huge lunar module to keep themselves dry.

Inside, a babble of strange tongues dominated the press center as commentators went on the air in French, Spanish, Japanese, Italian to tell the world of America's victory.